WSC 7.25-S

Operating instructions en

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ORIGINAL OPERATING INSTRUCTIONS

Circular Saw WSC 7.25-S

It is essential that the operating instructions are read before the tool is operated for the first time.

Always keep these operating instructions together with the tool.

Ensure that the operating instructions are with the tool when it is given to other persons.

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1. Specifications

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Model		WSC 7.25-S
Blade diameter		185 mm (7-1/4")
Max. Cutting depth	at 0°	62.5 mm (2-7/16")
	at 45°	43.5 mm (1-11/16")
	at 56°	32.5 mm (1-1/4")
No load speed (RPM)		5,800/min.
Overall length		317 mm (12-1/2")
Net weight		5.2 kg (11-1/2 lbs)

- Due to our continuing program of research and development, the specifications herein are subject to change without notice.
- Specifications may differ from country to country.
- Weight according to EPTA-Procedure 01/2003

2. General Power Tool Safety Warnings

WARNING Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference
The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

2.1 Work area safety

a) **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
b) **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
c) **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

2.2 Electrical safety

a) **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
b) **Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
c) **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.

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d) **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
e) **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
f) **If operating a power tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply.** Use of a GFCI reduces the risk of electric shock.

2.3 Personal safety

a) **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.
b) **Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
c) **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
d) **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
e) **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
f) **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.

2.4 Power tool use and care

a) **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.
b) **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
c) **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
d) **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
e) **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
f) **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
g) **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.

2.5 Service

a) Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

3. Safety Instructions for all saws

a) ⚠ **DANGER: Keep hands away from cutting area and the blade. Keep your second hand on auxiliary handle, or motor housing.** If both hands are holding the saw, they cannot be cut by the blade.
b) **Do not reach underneath the workpiece.** The guard cannot protect you from the blade below the workpiece.
c) **Adjust the cutting depth to the thickness of the workpiece.** Less than a full tooth of the blade teeth should be visible below the workpiece.
d) **Never hold piece being cut in your hands or across your leg. Secure the workpiece to stable platform.** It is important to support the work properly to minimize body exposure, blade binding, or loss of control.

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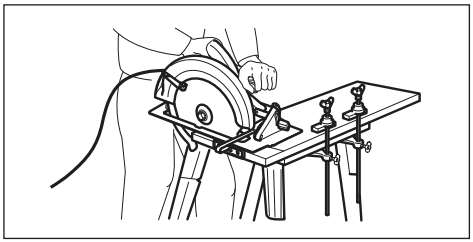
A typical illustration of proper hand support, workpiece support, and supply cord routing (if applicable).



e) **Hold power tool by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord.** Contact with a "live" wire will also make exposed metal parts of the power tool "live" and shock the operator.

f) **When ripping always use a rip fence or straight edge guide.** This improves the accuracy of cut and reduces the chance of blade binding.

g) **Always use blades with correct size and shape (diamond versus round) of arbour holes.** Blades that do not match the mounting hardware of the saw will run eccentrically, causing loss of control.

h) **Never use damaged or incorrect blade washers or bolt.** The blade washers and bolt were specially designed for your saw, for optimum performance and safety of operation.

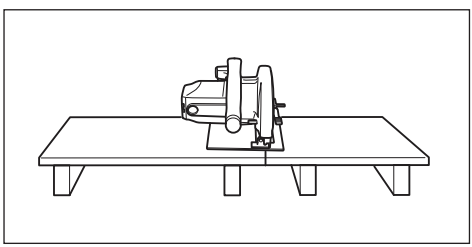
4. Further Safety Instructions for all saws

a) **Causes and Operator Prevention of Kickback:**
- kickback is a sudden reaction to a pinched, bound or misaligned saw blade, causing an uncontrolled saw to lift up and out of the workpiece toward the operator;
- when the blade is pinched or bound tightly by the kerf closing down, the blade stalls and the motor reaction drives the unit rapidly back toward the operator;
- if the blade becomes twisted or misaligned in the cut, the teeth at the back edge of the blade can dig into the top surface of the wood causing the blade to climb out of the kerf and jump back toward the operator.

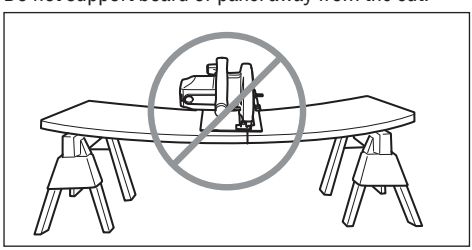
Kickback is the result of saw misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below:

1. **Maintain a firm grip with both hands on the saw and position your arms to resist kickback forces. Position your body to either side of the blade, but not in line with the blade.** Kickback could cause the saw to jump backwards, but kickback forces can be controlled by the operator, if proper precautions are taken.
2. **When blade is binding, or when interrupting a cut for any reason, release the trigger and hold the saw motionless in the material until the blade comes to a complete stop. Never attempt to remove the saw from the work or pull the saw backward while the blade is in motion or kickback may occur.** Investigate and take corrective actions to eliminate the cause of blade binding.
3. **When restarting a saw in the workpiece, centre the saw blade in the kerf and check that saw teeth are not engaged into the material.** If saw blade is binding, it may walk up or kickback from the workpiece as the saw is restarted.
4. **Support large panels to minimise the risk of blade pinching and kickback.** Large panels tend to sag under their own weight. Supports must be placed under the panel on both sides, near the line of cut and near the edge of the panel.

To avoid kickback, do support board or panel near the cut.



Do not support board or panel away from the cut.



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5. **Do not use dull or damaged blades.** Unsharpened or improperly set blades produce narrow kerf causing excessive friction, blade binding and kickback.
6. **Blade depth and bevel adjusting locking levers must be tight and secure before making cut.** If blade adjustment shifts while cutting, it may cause binding and kickback.
7. **Use extra caution when making a "plunge cut" into existing walls or other blind areas.** The protruding blade may cut objects that can cause kickback.

5. Safety Instructions for Saws with Pendulum Guard

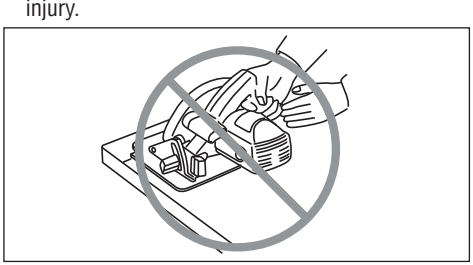
a) **Check lower guard for proper closing before each use. Do not operate the saw if lower guard does not move freely and close instantly. Never clamp or tie the lower guard into the open position.** If saw is accidentally dropped, lower guard may be bent. Raise the lower guard with the retracting handle and make sure it moves freely and does not touch the blade or any other part, in all angles and depths of cut.

b) **Check the operation of the lower guard spring. If the guard and the spring are not operating properly, they must be serviced before use.** Lower guard may operate sluggishly due to damaged parts, gummy deposits, or a build-up of debris.

c) **Lower guard should be retracted manually only for special cuts such as "plunge cuts" and "compound cuts." Raise lower guard by retracting handle and as soon as blade enters the material, the lower guard must be released.** For all other sawing, the lower guard should operate automatically.

d) **Always observe that the lower guard is covering the blade before placing saw down on bench or floor.** An unprotected, coasting blade will cause the saw to walk backwards, cutting whatever is in its path. Be aware of the time it takes for the blade to stop after switch is released.

e) **ALWAYS hold the tool firmly with both hands. NEVER place your hand or fingers behind the saw.** If kickback occurs, the saw could easily jump backwards over your hand, leading to serious personal injury.



f) **Never force the saw. Push the saw forward at a speed so that the blade cuts without slowing.** Forcing the saw can cause uneven cuts, loss of accuracy, and possible kickback.

g) **Use extra caution when cutting damp wood, pressure treated lumber, or wood containing knots.** Adjust speed of cut to maintain smooth advancement of tool without decrease in blade speed.

h) **Do not attempt to remove cut material when blade is moving. Wait until blade stops before grasping cut material.** CAUTION: Blades coast after turn off.

i) **Avoid Cutting Nails. Inspect for and remove all nails from lumber before cutting.**

j) **Place the wider portion of the saw base on that part of the workpiece which is solidly supported, not on the section that will fall off when the cut is made. As examples, Fig. 1 illustrates the RIGHT way to cut off the end of a board, and Fig. 2 the WRONG way. If the workpiece is short or small, clamp it down. DO NOT TRY TO HOLD SHORT PIECES BY HAND!**

Fig. 1

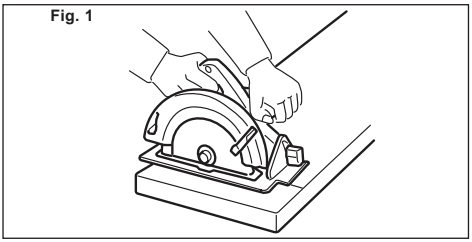
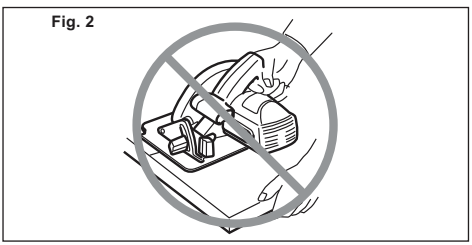


Fig. 2



k) **Before setting the tool down after completing a cut, be sure that the lower guard has closed and the blade has come to a complete stop.**

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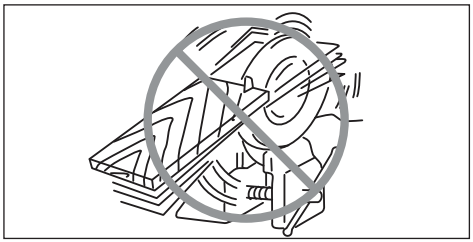
l) **Never attempt to saw with the circular saw held upside down in a vise. This is extremely dangerous and can lead to serious accidents.**



m) **Some material contains chemicals which may be toxic. Take caution to prevent dust inhalation and skin contact. Follow material supplier safety data.**
n) **Do not stop the blades by lateral pressure on the saw blade.**
o) **Always use blades recommended in this manual. Do not use any abrasive wheels.**
p) **Keep blade sharp and clean.** Gum and wood pitch hardened on blades slows saw and increases potential for kickback. Keep blade clean by first removing it from tool, then cleaning it with gum and pitch remover, hot water or kerosene. Never use gasoline.
q) **Wear a dust mask and hearing protection when use the tool.**
r) **Follow instruction for lubricating and changing accessories.**
s) **Keep handles dry, clean and free from oil and grease.**

USE PROPER EXTENSION CORD. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table 1 shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.

Table 1: Minimum gage for cord

Ampere Rating		Volts	Total length of cord feet			
		120 V	25 ft.	50 ft.	100 ft.	150 ft.
More Than	Not More Than		AWG			
0	6		18	16	16	14
6	10		18	16	14	12
10	12		16	16	14	12
12	16		14	12	Not recommended	

6. Save these Instructions

WARNING:
DO NOT let comfort or familiarity with product (gained from repeated use) replace strict adherence to safety rules for the subject product. MISUSE or failure to follow the safety rules stated in this instruction manual may cause serious personal injury.

WARNING:
Some dust created by grinding, sanding, cutting, and drilling contains chemicals known to cause cancer, birth defects, infertility or other reproductive harm; or serious and permanent respiratory or other injury.
Some examples of these chemicals are:
- lead from lead-based paints,
- crystalline silica from bricks, concrete and other masonry products and natural stone,
- arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. **To reduce exposure to these chemicals, the operator and bystanders should work in a well-ventilated area, work with approved safety equipment, such as respiratory protection appropriate for the type of dust generated, and designed to filter out microscopic particles and direct dust away from the face and body. Avoid prolonged contact with dust. War protective clothing and wash exposed areas with soap and water.** Allowing dust to get into your mouth, eyes, or to remain on your skin may promote absorption of harmful chemicals.

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7. Symbols

The followings show the symbols used for tool.

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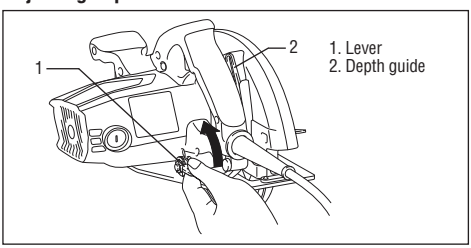
V	• volts
A	• amperes
Hz	• hertz
~	• alternating current
n_0	• no load speed
⧈	• Class II Construction
.../min r/min	• revolutions or reciprocation per minute

8. Functional Description

CAUTION:
- Always be sure that the tool is switched off and unplugged before adjusting or checking function on the tool.

Adjusting depth of cut

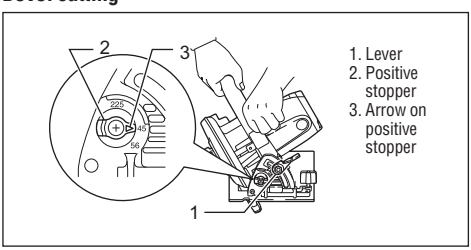


1. Lever
2. Depth guide

CAUTION:
- After adjusting the depth of cut, always tighten the lever securely.

Loosen the lever on the depth guide and move the base up or down. At the desired depth of cut, secure the base by tightening the lever.
For cleaner, safer cuts, set cut depth so that no more than one blade tooth projects below workpiece. Using proper cut depth helps to reduce potential for dangerous KICKBACKS which can cause personal injury.

Bevel cutting



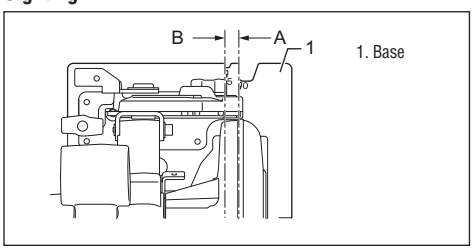
1. Lever
2. Positive stopper
3. Arrow on positive stopper

Positive stopper
Turn the positive stopper so that the arrow on it points one of three positions (22.5°,45°,56°). Then, tilt the tool base until it stops and secure the base with the lever. At this time, the same angle as the one that the arrow points is obtained.

Setting bevel angle
Loosen the lever and tentatively set the tool base at the 0°bevel angle, then tighten the lever securely.
Turn the positive stopper so that the arrow on it points one of three positions (22.5°,45°,56°) that is equal to or greater than the desired bevel angle.
Loosen the lever again and then tilt and secure the tool base at the desired angle securely.

NOTE:
- When changing the positive stopper's position, loosening the lever and tilting the bevel angle to less than the desired stopper position number allows to change it.
- When the arrow on the positive stopper points 22.5, the bevel angle can be adjusted 0 - 22.5°;when the arrow points 45, it can be adjusted 0 - 45°; when the arrow points 56, it can be adjusted 0 - 56°.

Sighting



1. Base

For straight cuts, align the A position on the front of the base with your cutting line. For 45° bevel cuts, align the B position with it.

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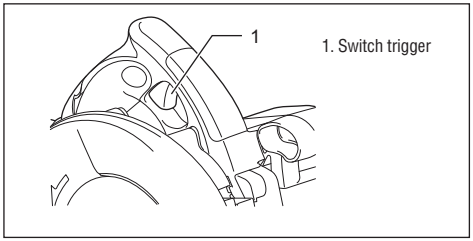
Switch action



CAUTION:
- Before plugging in the tool, always check to see that the switch trigger actuates properly and returns to the "OFF" position when released.

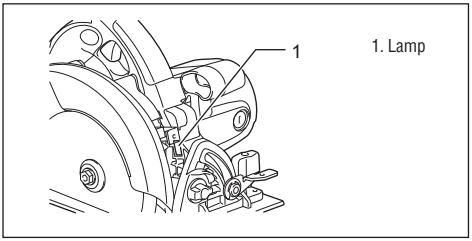
To start the tool, simply pull the switch trigger. Release the switch trigger to stop.

Electric brake

This tool is equipped with an electric blade brake. If the tool consistently fails to quickly stop blade after switch trigger release, have tool serviced at a Hilti service center.

The blade brake system is not a substitute for lower guard. NEVER USE TOOL WITHOUT A FUNCTIONING LOWER GUARD. SERIOUS PERSONAL INJURY CAN RESULT.

Lighting the lamp



CAUTION:
- Do not apply impact to the lamp, which may cause damage or shorted service time to it.
- Do not look in the light or see the source of light directly.

The lamp lights up when the tool is plugged. The lamp keeps on lighting until the tool is unplugged.

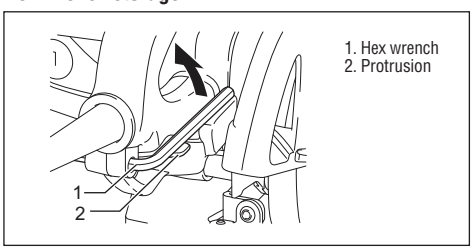
If the lamp does not light up, the mains cord may be defective. The lamp is lit but the tool does not start even if the tool is switched on, the carbon brushes may be worn out, the motor or the ON/OFF switch may be defective.

NOTE:
- Use a dry cloth to wipe the dirt off the lens of lamp. Be careful not to scratch the lens of lamp, or it may lower the illumination.

9. Assembly

CAUTION:
- Always be sure that the tool is switched off and unplugged before carrying out any work on the tool.

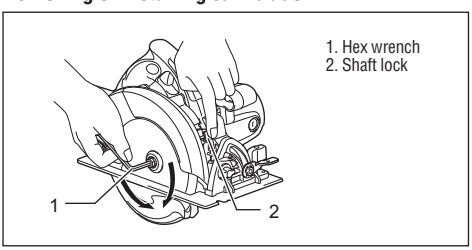
Hex wrench storage



Hex wrench is stored on the tool. To remove hex wrench, rotate it toward yourself and pull it out.

To install hex wrench, place it on the handle and turn it until it comes into contact with the protrusion on the handle.

Removing or installing saw blade



CAUTION:
- Be sure the blade is installed with teeth pointing up at the front of the tool.
- Use only the Hilti wrench to install or remove the blade.

To remove the blade, press the shaft lock so that the blade cannot revolve and use the hex wrench to loosen the hex bolt counterclockwise. Then remove the hex bolt, outer flange and blade.

To install the blade, follow the removal procedure in

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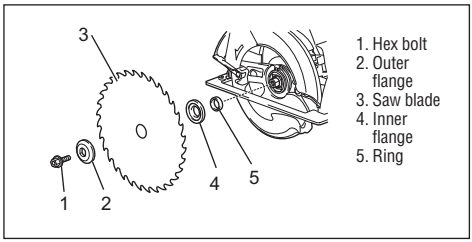
reverse. BE SURE TO TIGHTEN THE HEX BOLT CLOCKWISE SECURELY.

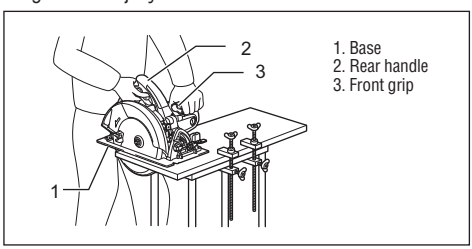


When changing blade, make sure to also clean upper and lower blade guards of accumulated sawdust. Such efforts do not, however, replace the need to check lower guard operation before each use.

10. Operation

CAUTION:

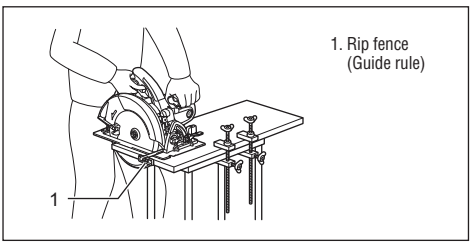
- Be sure to move the tool forward in a straight line gently. Forcing or twisting the tool will result in overheating the motor and dangerous kickback, possibly causing severe injury.



Hold the tool firmly. The tool is provided with both a front grip and rear handle. Use both to best grasp the tool. If both hands are holding saw, they cannot be cut by the blade. Set the base on the workpiece to be cut without the blade making any contact. Then turn the tool on and wait until the blade attains full speed. Now simply move the tool forward over the workpiece surface, keeping it flat and advancing smoothly until the sawing is completed.

To get clean cuts, keep your sawing line straight and your speed of advance uniform. If the cut fails to properly follow your intended cut line, do not attempt to turn or force the tool back to the cut line. Doing so may bind the blade and lead to dangerous kickback and possible serious injury. Release switch, wait for blade to stop and then withdraw tool. Realign tool on new cut line, and start cut again. Attempt to avoid positioning which exposes operator to chips and wood dust being ejected from saw. Use eye protection to help avoid injury.

Rip fence (Guide rule)



The handy rip fence allows you to do extra-accurate straight cuts. Simply slide the rip fence up snugly against the side of the workpiece and secure it in position with the screw on the front of the base. It also makes repeated cuts of uniform width possible.

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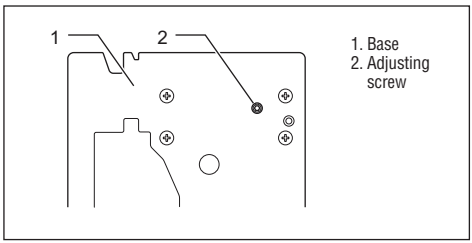
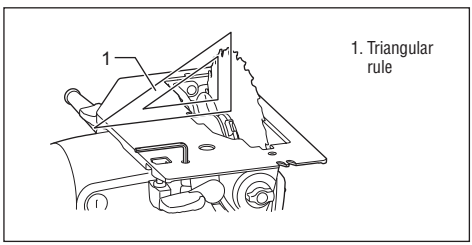
11. Maintenance

CAUTION:
- Always be sure that the tool is switched off and unplugged before attempting to perform inspection or maintenance.
- Never use gasoline, benzine, thinner, alcohol or the like. Discoloration, deformation or cracks may result.

Adjusting for accuracy of 90° cut (vertical cut)
This adjustment has been made at the factory. But if it is off, adjust the adjusting screw with a hex wrench while squaring the blade with the base using a triangular rule, try square, etc.

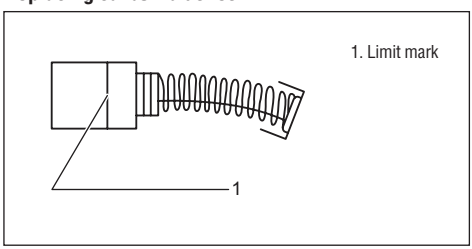


1. Base
2. Adjusting screw



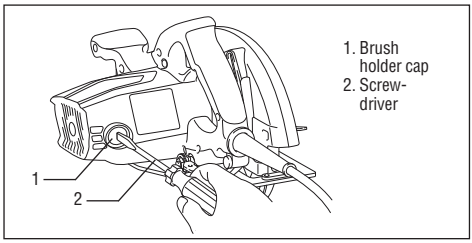
1. Triangular rule

Replacing carbon brushes



1. Limit mark

Remove and check the carbon brushes regularly. Replace when they wear down to the limit mark. Keep the carbon brushes clean and free to slip in the holders. Both carbon brushes should be replaced at the same time. Use only identical carbon brushes.
Use a screwdriver to remove the brush holder caps. Take out the worn carbon brushes, insert the new ones and secure the brush holder caps.



1. Brush holder cap
2. Screw-driver

After replacing brushes, plug in the tool and break in brushes by running tool with no load for about 10 minutes. Then check the tool while running and electric brake operation when releasing the switch trigger. If electric brake is not working well, ask your local Hilti service center for repair.
To maintain product SAFETY and RELIABILITY, repairs, any other maintenance or adjustment should be performed by Hilti Authorized or Factory Service Centers, always using Hilti replacement parts.

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12. Accessories

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CAUTION:

- These accessories or attachments are recommended for use with your Hilti tool specified in this manual. The use of any other accessories or attachments might present a risk of injury to persons. Only use accessory or attachment for its stated purpose.

If you need any assistance for more details regarding these accessories, ask your local Hilti Service Center.

- Steel & Carbide-tipped saw blades

Combination	General purpose blade for fast and smooth rip, crosscuts and miters.
Pressure treated/ Wet lumber	Designed for fast cutting of pressure treated and wet lumber.
Fine cross cuts	For sand-free cuts cleanly against the grain.

- Rip fence (Guide rule)
- Hex wrench

13. Manufacturer's warranty – tools

Hilti warrants that the tool supplied is free of defects in material and workmanship. This warranty is valid so long as the tool is operated and handled correctly, cleaned and serviced properly and in accordance with the Hilti Operating Instructions, and the technical system is maintained. This means that only original Hilti consumables, components and spare parts may be used in the tool.

This warranty provides the free-of-charge repair or replacement of defective parts only over the entire lifespan of the tool. Parts requiring repair or replacement as a result of normal wear and tear are not covered by this warranty.

Additional claims are excluded, unless stringent national rules prohibit such exclusion. In particular, Hilti is not obligated for direct, indirect, incidental or consequential damages, losses or expenses in connection with, or by reason of, the use of, or inability to use the tool for any purpose. Implied warranties of merchantability or fitness for a particular purpose are specifically excluded.

For repair or replacement, send tool or related parts immediately upon discovery of the defect to the address of the local Hilti marketing organization provided.

This constitutes Hilti's entire obligation with regard to warranty and supersedes all prior or contemporaneous comments and oral or written agreements concerning warranties.

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